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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,111	08/14/2001	Timothy R. Robinson	KORR117117	2495
26389	7590	02/26/2004	EXAMINER	
CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC			TADESSE, YEWEBDAR T	
1420 FIFTH AVENUE			ART UNIT	
SUITE 2800			PAPER NUMBER	
SEATTLE, WA 98101-2347			1734	

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/930,111	ROBINSON ET AL. <i>eb</i>	
	Examiner	Art Unit	
	Yewebdar T Tadesse	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) 33-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02072002</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-32, drawn to a method of depositing a release agent, classified in class 118, subclass 429.
 - II. Claim 33, drawn to a mold made by a method of depositing a releasing agent, classified in class 428, subclass 543.
 - III. Claims 34-58, drawn to a method for making a thermoset-molded body, classified in class 264, subclass 338.
 - IV. Claim 59, drawn to a mold made by the method of making a thermoset molded body classified in class 428, subclass 543.
 - V. Claims 60-61, drawn to a system for making molded body, classified in class 425, subclass 174.2.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II & IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product of group II can be made by the process of making of group III or the product of IV can be made by the process of making of group I.

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3. Inventions III and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because a method of making thermoset molded body does not require placing the workpiece in the solution of releasing agent and water. The subcombination has separate utility such as for the application of releasing agent to the electronic components.

4. Inventions I& III and V are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice with a method not requiring providing a thermoset resin or the method of depositing releasing agent can be practiced with the apparatus not requiring a once-anodized aluminum workpiece.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and their

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recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Laura Cruz on 02/09/2004 a provisional election was made without traverse to prosecute the invention of I, claims 1-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 33-61 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 5; applicants recite the limitation a solution comprising "the mold release agent". There is insufficient antecedent basis for

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this limitation in the claim. Applicants claim as shown in claim 1, line 1 a method of depositing a releasing agent on a surface of a workpiece. The term mold release agent is not recited anywhere in other claims of this group. For the purpose of examination, the solution comprising "a release agent" is broadly assumed.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1 and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawamoto et al (US 6,347,584).

As to claim 1, Kawamoto et al discloses (see column 2, lines 32-39 and Fig 3B) a method of manufacturing electronics components by applying releasing layer on the surface of a workpiece (intaglio) comprising dipping the workpiece (intaglio) in a solution containing releasing agent and applying ultrasonic energy to the solution to allow uniform formation of releasing agent layer on the surface of the workpiece. With respect to claims 28-29, in Kawamoto et al the source of ultrasonic is provided either internally or externally to the solution (see Figs 3A and 3B for ultrasonic generator 13

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provided inside and outside of the vessel 30 containing solutions). The source of the energy is capable of being rastered over the workpiece (intaglio).

Claim Rejections - 35 USC § 103

12. Claims 2-10, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto et al (US 6,347,584) as applied to claim 1 above, and further in view of Kinoshita (US 6,225,205) and Konuma et al (US 5,856,853). Kawamoto et al lacks teaching a workpiece comprising a metal oxide. Kinoshita discloses (see column 10, lines 5-9) the surface of intaglio (workpiece) coated with titanium oxide to acquire rigid and opaque and abrasion resistance characteristics of the article. Konuma discloses (see column 2, lines 39-50) that a metal oxide film (formed by anode oxidization method) on the surface of a substrate is sufficiently hard. It would have been obvious at the time the invention was made to include a workpiece (intaglio) comprising a metal oxide in Kwamoto et al to add the stiffness characteristics of the metal oxides to the workpiece.

13. Claims 11-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto et al (US 6,347,584), Kinoshita (US 6,225,205) and Konuma et al (US 5,856,853) as applied to claim 10 above, and further in view of Jacobson (US 5,071,676). Kawamoto et al as modified lacks teaching the metal oxide exhibiting an isoelectric point greater than or about, 2 or 4 or 8 or 10 or less than or about 12 or from about 7 to about 12.5 or from about 6 to about 7. Jacobson teaches (see column 2,

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lines 17-23 and see table 1) a surface or particle coated with metal oxide (thin oxide) having an isoelectric point adjusted in the range of from about 5-9. It would have been obvious at the time the invention was made to include a metal oxide exhibiting an isoelectric of various points as claimed in Kwamoto as modified in order to achieve stable dispersion of paint resins in the tin oxide based conductive pigment as taught by Jacobson (see column 1, lines 39-57).

14. Claims 20-23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto et al (US 6,347,584) as applied to claim 1 above. A solution comprising water, alcohol and release agent is not taught in Kwamoto et al. However, Kawamoto uses (see column 3, lines 56-65) solutions for the releasing agent including a release agent comprising fluorine, however It would have been obvious to employ aqueous or non-aqueous solution depending on polarity and exact nature of release agent. As to claim 30, Kawamoto discloses a step for air drying or drying in an oven the workpiece (see column 3, lines 63-67), but lacks teaching the range of temperature and the period of drying. It would also be obvious to cure a workpiece at different temperature and period of exposure time depending the type and characteristics of the substrate treated.

15. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto et al (US 6,347,584) as applied to claim 1 above, and further in view of Metzger (US 5,925,231). Kawamoto et al is silent concerning the frequency of ultrasonic energy up to about 40 kHz. Metzger teaches applying ultrasonic energy in a

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frequency range of 10-40 KHz in plating a substrate. It would have been obvious at the time the invention was made to apply ultrasonic energy up to about 40 kHz in Kawamoto et al to provide uniform and efficient ion movement as taught by Metzger (see column 2, lines 5-25).

Allowable Subject Matter

16. Claims 24-26 and 31-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As to claims 24-25, prior art of record does not disclose or suggest a method of depositing a release agent on a surface of a workpiece comprising, among others, providing a solution comprising a release agent and providing ultrasonic energy, wherein the release agent is a compound with the general formula as recited in claim 24. As to claim 26, prior art of record does not disclose or suggest a method of depositing a release agent on a surface of a workpiece comprising, among others, providing a solution comprising a release agent and providing ultrasonic energy, wherein the release agent is an ester or acid selected from the group consisting phosphates, phosphonates, phosphonites, sulfates, sulfites and carboxylates.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T Tadesse whose telephone number is (571)


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272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Revised P-D
YTT


MICHAEL COLAIANNI
PRIMARY EXAMINER